

CMMCP WEEKLY SURVEILLANCE REPORT



EPI week #28
July 6 – 12, 2014

Frank Cornine, *Field Biologist*
Curtis Best, *Staff Entomologist*
Tim McGlinchy, *Director of Operations*
Tim Deschamps, *Executive Director*

Central Mass. Mosquito Control Project
Weekly Report- 7/6/14-7/12/14
EPI Week #28

Cumulative Surveillance Summary

Target Species	<i>Ae. vex</i>	<i>Cq. per</i>	<i>Cs. mel</i>	<i>Oc. can</i>	<i>Culex</i>	All Species
No. Pools	1	34	22	27	303	588
Total Specimens	1	1839	118	233	4431	7786
No. Pools WNV +	0	0	0	0	1 [†]	1 [†]
No. Pools EEE +	0	0	0	0	0	0

† Pool of WNV+ *Culex* Species collected in Clinton on 7/3/13

Weather Summary (Northborough, MA): The weather for this particular week averaged 74.70°F with a recorded high temperature of 89.4°F and a recorded low temperature of only 57.6°F. For this week there was also a total of 0.03 inches of rain observed. Compared to the previous week, it was approximately 0.17°F warmer on average, and rained about 1.53 inches less. There has been 1.59 inches of rain accumulated in July, while the total rainfall for the month of June was 1.46 inches.

Service Request Summary: For the year we have received 77% more requests than average; 10,511 requests to date compared to the 11 year average of 5,952. Requests were 38% more than the 2013 totals for the same time frame, 7,628 in 2013 against 10,511 in 2014. Service requests dropped very slightly (~1%) from EPI week 27 to Epi week 28 for 2014 (977 vs. 967).

CMMCP Mosquito Summary*-

Target Species	Δ From Last Week	Δ From Last Year	Predominant Trap Site(s)
<i>Aedes vexans</i>	+00.00%	-100.0%	N/A
<i>Coquillettidia perturbans</i>	+13.07%	-20.31%	Tewksbury, Webster
<i>Culiseta melanura</i>	-100.0%	-100.0%	N/A
<i>Ochlerotatus canadensis</i>	+00.00%	-37.50%	Webster
<i>Culex</i> Species	+163.4%	+58.82%	Webster, Shrewsbury, Lov
All Species	+20.99%	-22.29%	Tewksbury, Webster

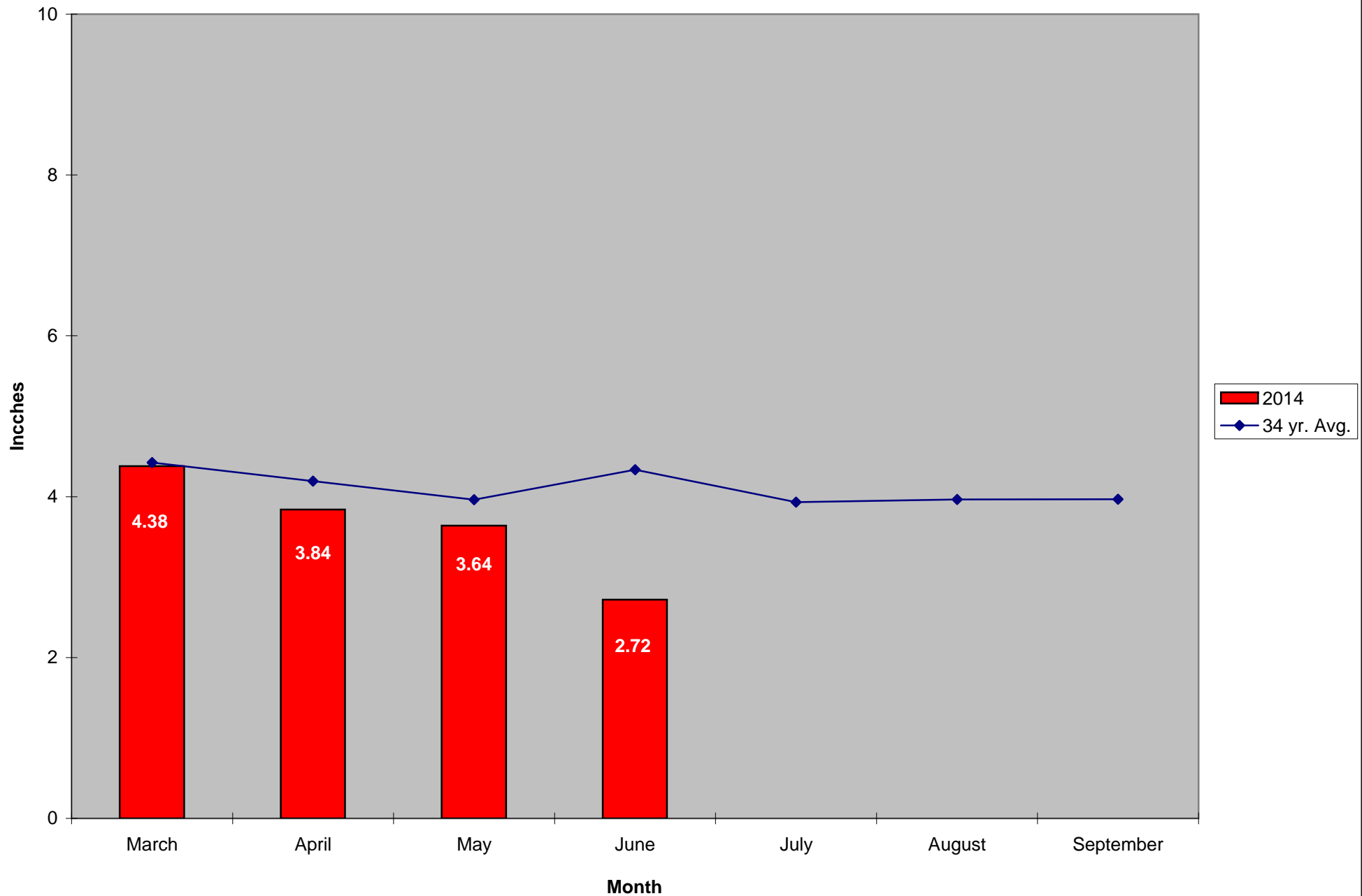
The predominant mosquito for the week was *Culex*, followed by *Coquilleltidia perturbans*.

General narrative: Temperatures remained steady during EPI week 28, with accumulated rainfall falling to near zero after 1.56 inches of precipitation the week before. *Coquillettidia perturbans* continued increase, although at a much lower level than previous weeks. *Culex* mosquitoes experienced the most significant increase in the CMMCP service area. *Ochlerotatus canadensis* remained steady, while *Culiseta melanura* was not collected this week. The surveillance program still has yet to collect

an *Aedes vexans* specimen at one of the historical trap sites. The additional *Cq. perturbans* again produced an increase in the overall historical site collection numbers. All of our target species, except *Culex*, are present in lower levels than during the 2013 EPI week 28. At the historical CDC trap locations, *Cq. perturbans* was again the principal species followed by *Culex*, but when all trap types are taken into consideration, these two switch predominance.

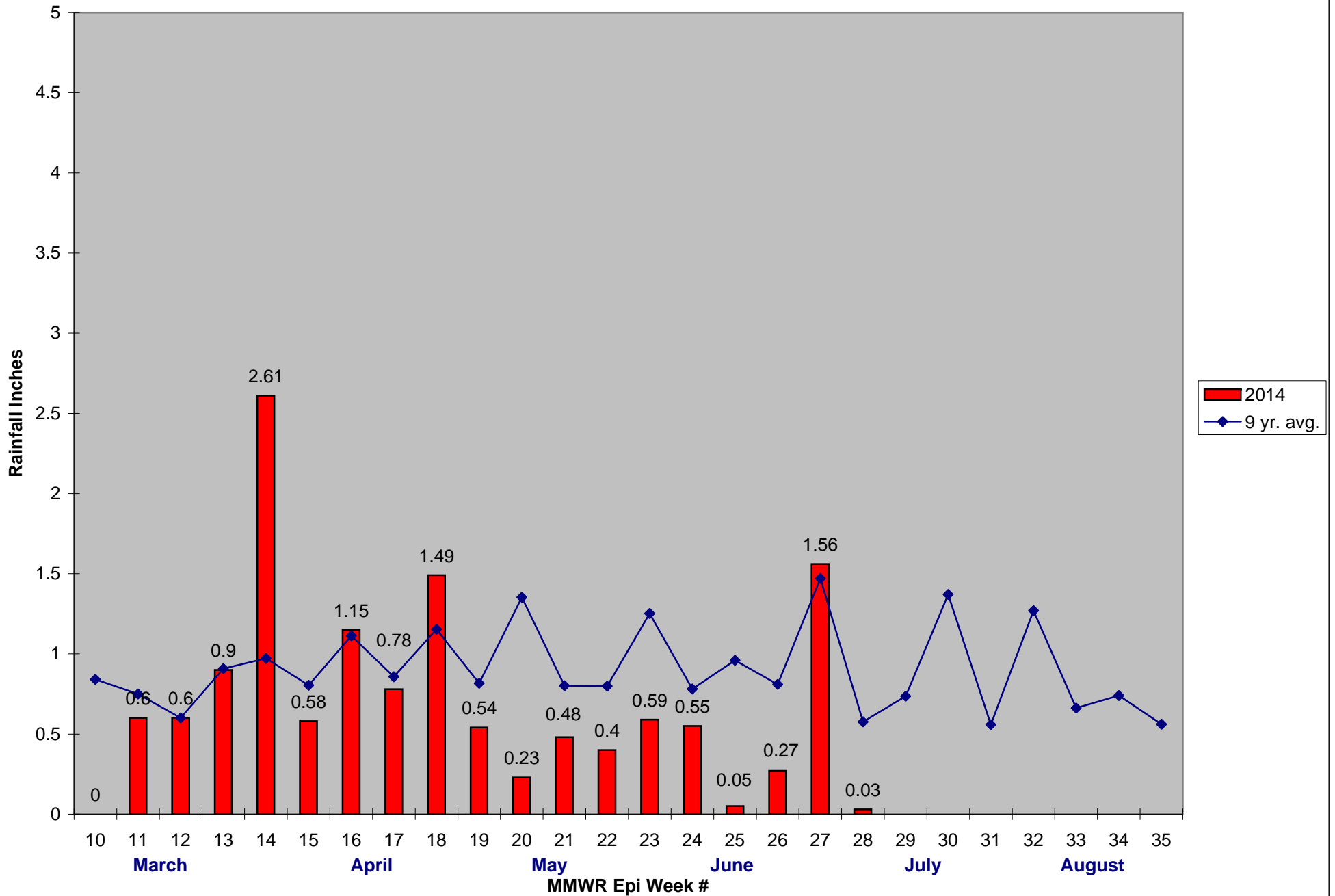
Mosquitoes with West Nile Virus were confirmed July 9 in a surveillance trap set by CMMCP off Berlin Rd. on July 2. Working with the Clinton & Berlin Boards of Health, a ~1 mile radius around the trap site approximating 9 street miles was sprayed in the area July 10. Catch basins were treated in this area to stop emergence of mosquito species that can carry WNV, and additional surveillance traps have been set up to gauge population density and determine if additional virus can be isolated.

2014 Mass. Rainfall Data vs. 34 Year Average*



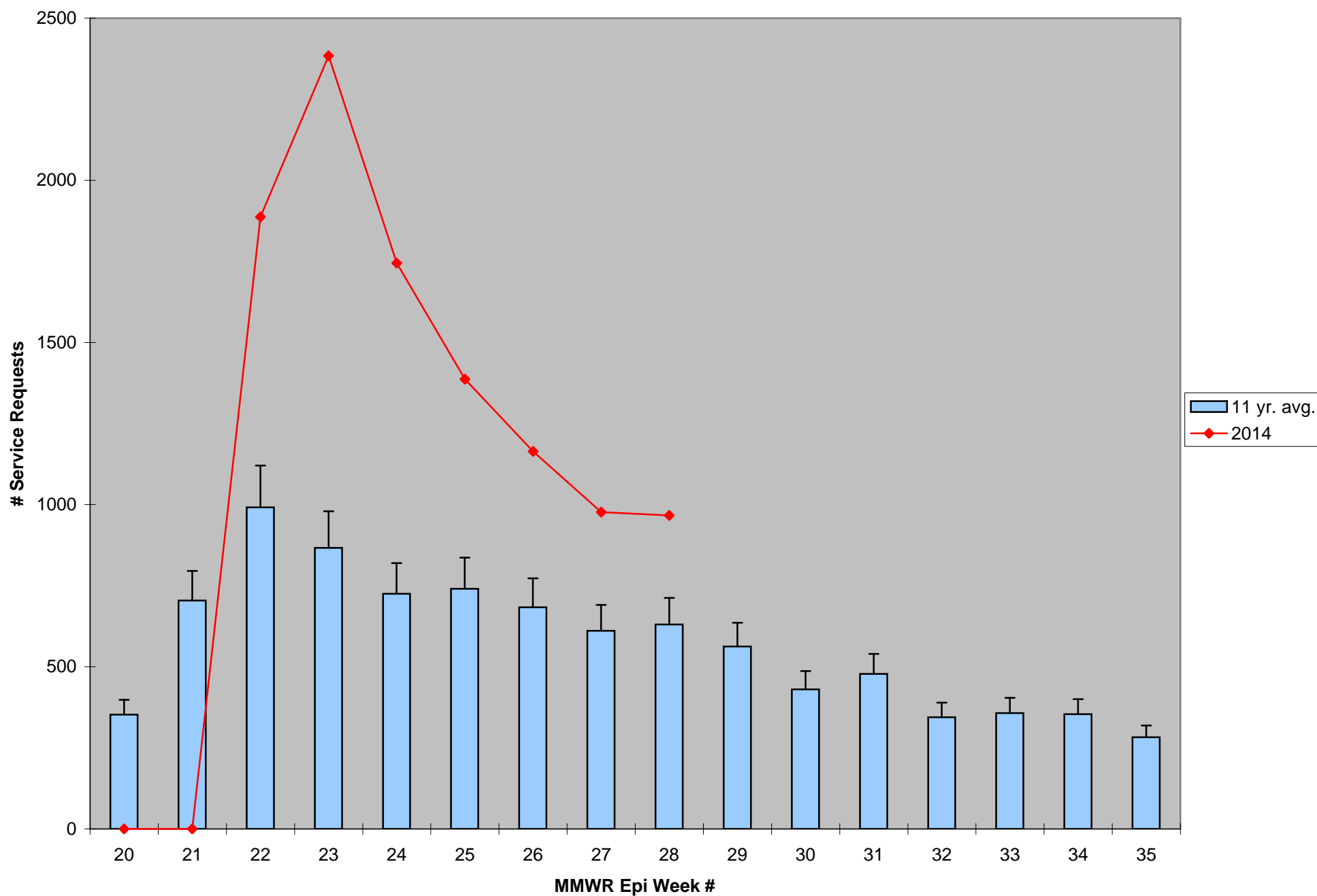
*Source: Northeast Regional Climate Center: http://www.nrcc.cornell.edu/page_summaries.html

2014 CMMCP Weekly Rainfall vs. 9 Year Average*



*Source: CMMCP Weather Station - Northborough, MA

ULV Service Request History Comparison 2003-2014



Error bars show approx. number of requests if we had 40 cities and towns over the 10 year average

2014 Rainfall vs. Requests

